



Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 1093 (1981): Handloom Cotton Madras Handkerchiefs [TXD
8: Handloom and Khadi]

“ज्ञान से एक नये भारत का निर्माण”

Satyanaaranay Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”



BLANK PAGE



PROTECTED BY COPYRIGHT

Indian Standard
SPECIFICATION FOR
HANDLOOM COTTON MADRAS
HANDKERCHIEFS
(*First Revision*)

UDC 687.245 : 677.21.064



© Copyright 1981

INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9, BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Printed in India

Gr 4

December 1981

Indian Standard

SPECIFICATION FOR
HANDLOOM COTTON MADRAS
HANDKERCHIEFS

(First Revision)

Handloom and Khadi Sectional Committee, TDC 13

Chairman

Representing

DEVELOPMENT COMMISSIONER FOR Development Commissioner for Handlooms,
 HANDLOOMS New Delhi

Vice-Chairman

DIRECTOR OF HANDLOOMS AND Directorate of Handlooms and Textiles, Govern-
 TEXTILES Government of Tamil Nadu, Madras

Members

JOINT DIRECTOR OF HANDLOOMS

AND TEXTILES (*Alternate to*
 Director of Handlooms & Textiles)

SHRI P. C. AGARWAL Ministry of Defence (R&D)

SHRI K. NAGARAJAN (*Alternate*)

SHRI A. T. BASAK Directorate General of Supplies & Disposals,
 (Inspection Wing), New Delhi

SHRI A. R. HALDAR (*Alternate*)

SHRI PARITOSH DAS Directorate of Industries, Government of West
 Bengal, Calcutta

SHRI P. K. DAS (*Alternate*)

SHRI L. DESI GOWDA Development Commissioner of Handlooms,
 New Delhi

SHRI B. B. GUPTA Government of Uttar Pradesh

SHRI G. D. BANERJEE (*Alternate*)

SHRI T. MAHADEVAN Handloom Export Promotion Council, Madras

SHRI K. MANIVANAN Directorate of Industries, Government of

Haryana, Chandigarh

SHRI C. R. YADAV (*Alternate*)

SHRI A. P. NAMBIAR Kerala State Handloom Development Corporation
 Ltd, Cannanore

SHRI G. S. NAIR (*Alternate*)

(Continued on page 2)

© Copyright 1981

INDIAN STANDARDS INSTITUTION

This publication is protected under the *Indian Copyright Act* (XIV of 1957) and
 reproduction in whole or in part by any means except with written permission of the
 publisher shall be deemed to be an infringement of copyright under the said Act.

(Continued from page 1)

Members

SHRI R. S. PRAYAG

SHRI M. G. RAJAN

SHRI A. S. RAMA RAO (*Alternate*)

SHRI S. RANGARAJAN

SHRI T. RANGASWAMY

REGIONAL MANAGER

REPRESENTATIVE

SECRETARY

SHRI A. RAJAMANI (*Alternate*)

SENIOR EXECUTIVE & SPECIAL
OFFICER

SENIOR MANAGER (PRODUCT
DEVELOPMENT) (*Alternate*)

SHRI K. VIDYA SAGAR

SHRI D. R. YADAV

SHRI K. R. GARG (*Alternate*)

SHRI S. M. CHAKRABORTY,
Director (Tex)

Representing

Development Commissioner for Handlooms,
New Delhi

Textiles Committee, Bombay

Handicrafts and Handlooms Export Corporation
of India Ltd, Madras

The Southern India Mills' Association,
Coimbatore

Andhra Pradesh State Handloom Weavers' Co-
operative Society Ltd, Vijayawada

Khadi and Village Industries Commission, Bombay

All India Handloom Fabrics Marketing
Co-operative Society Ltd, Bombay

The Tamil Nadu Handloom Weavers'
Co-operative Society Ltd, Madras

Andhra Pradesh State Textile Development
Corporation Ltd, Hyderabad

Ministry of Defence (DGI)

Director General, ISI (*Ex-officio Member*)

Secretary

SHRI S. BANERJI

Deputy Director (Tex), ISI

Handloom and Khadi Cotton Cloth Subcommittee, TDC 13 : 1

Convenor

PRINCIPAL, INDIAN INSTITUTE OF
H A N D L O O M T E C H N O L O G Y , N e w D e l h i
V A R A N A S I

Members

SHRI A. T. BASAK

Directorate General of Supplies & Disposals
(Inspection Wing), New Delhi

SHRI A. R. HALDAR (*Alternate*)

Development Commissioner for Handlooms,
New Delhi

SHRI L. DESI GOWDA

Directorate of Industries, Government of Punjab,
Chandigarh

SHRI J. S. GREWAL

SHRI MOHINDER SINGH (*Alternate*)

Government of Uttar Pradesh

SHRI B. B. GUPTA

SHRI G. D. BANERJEE (*Alternate*)

(Continued on page 13)

Indian Standard

SPECIFICATION FOR
HANDLOOM COTTON MADRAS
HANDKERCHIEFS

(*First Revision*)

0. F O R E W O R D

0.1 This Indian Standard (First Revision) was adopted by the Indian Standards Institution on 9 November 1981, after the draft finalized by the Handloom and Khadi Sectional Committee had been approved by the Textile Division Council.

0.2 This standard, which was first published in 1957, has been taken up for revision in order to make it up-to-date. Important changes carried out in the standard are:

- a) deletion of breaking strength values, since the standard recommends the use of yarn conforming to IS : 171-1973*; and
- b) inclusion of inspection marking and packing clauses.

0.3 Standards of Weights and Measures Act, 1976 stipulates the use of International System of Units in the country; in order to familiarize the industry with this system, the recommended SI units for use in the textile industry are given in Appendix A.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960†. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the constructional particulars and other requirements of four varieties of handloom cotton Madras handkerchiefs.

*Specification for grey cotton yarn (*second revision*).

†Rules for rounding off numerical values (*revised*).

1.2 This standard does not specify the general appearance, feel, finish, shade, etc, of the cloth (*see also 3.3*).

2. MANUFACTURE

2.1 Yarn — The cotton yarn used in the manufacture of cloth shall be satisfactory in evenness and reasonably free from neps and spinning defects. The yarn shall conform to Grade 'C' of IS : 171-1973*.

3. REQUIREMENTS

3.1 The constructional particulars of the cloth shall conform to those given in Table 1.

3.2 The colour fastness ratings and other requirements of the cloth shall conform to those given in Table 2.

3.3 If, in order to illustrate or specify the indeterminable characteristics, such as, general appearance, lustre, feel and shade of the cloth, a sample has been agreed upon and sealed, the supply shall be in conformity with the sample in such respects.

3.3.1 The custody of the sealed sample shall be a matter of prior agreement between the buyer and the seller.

4. INSPECTION

4.1 The cloth when visually inspected shall be reasonably free from the following defects:

- a) More than two adjacent ends running parallel, broken or missing and extending beyond 20 cm;
- b) Weft crack or more than two missing picks across the width of the material;
- c) Prominently noticeable weft bar due to the difference in raw material, count, twist, lustre; etc.
- d) Noticeable selvedge defects;
- e) Noticeable warp or weft float in the body;
- f) Noticeable oil or other stains;
- g) Noticeable hole, cut or tear of up to 3 mm size;
- h) Smash rupturing the texture of the fabric;

*Specification for grey cotton yarn (*second revision*).

- j) Undressed snarls noticeable throughout the piece;
- k) Conspicuous gout due to foreign matter, usually lint or waste woven;
- m) Conspicuous broken pattern; and
- n) Any other flaw which would mar the appearance or affect the serviceability and/or durability of the cloth.

4.1.1 A reference may be made to IS : 4125-1967* for details of these defects.

5. MARKING

5.1 The cloth shall be suitably marked or labelled with the following information:

- a) Name of the material and variety number;
- b) Manufacturer's name, initials or trade-mark;
- c) Length and width of the cloth; and
- d) Count of warp and weft yarn.

5.1.1 The cloth may also be marked with the ISI Certification Mark.

NOTE—The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

6. PACKING

6.1 Unless otherwise agreed upon by the buyer and the seller, the cloth shall preferably be packed in bales or cases in conformity with the procedure laid down in IS : 1347-1972† or IS : 293-1980‡.

7. SAMPLING

7.1 Lot—The quantity of handloom cotton Madras handkerchiefs of the same variety, width and colour delivered to a buyer at a time shall constitute a lot.

*Glossary of terms pertaining to defects in fabrics.

†Code for inland packaging of cotton cloth and yarn (*first revision*).

‡Code for seaworthy packaging of cotton cloth and yarn (*third revision*).

TABLE 1 CONSTRUCTIONAL PARTICULARS OF HANDLOOM COTTON MADRAS HANDKERCHIEFS
(Clause 3.1)

VARIETY No.	COUNT OF YARN (<i>see Note 1</i>)		ENDS/cm	PICKS/cm	LENGTH	WIDTH	WEAVE
	Cotton Count Warp	Universal Count Weft					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
					m	cm	
1.	60s (10 tex)	36s (16 tex)	30	34	7	91	
2.	60s (10 tex)	36s (16 tex)	32	38	or as declared	or as agreed	Plain
3.	60s (10 tex)	40s (15 tex)	30	40			
4.	60s (10 tex)	40s (15 tex)	36	44			
9.	Tolerance, Percent	—	—	± 5	± 5	see Note 2	± 2
	Method of Test	—	—	IS : 1963-1981*		IS : 1954-1969†	Visual

NOTE 1—Count of yarn is given for guidance only.

NOTE 2—The length shall be not less than the declared or marked value.

*Methods for determination of threads per unit length in woven fabrics (*second revision*).

†Methods for determination of length and width of fabric (*first revision*).

TABLE 2 REQUIREMENTS OF HANDLOOM COTTON MADRAS HANDKERCHIEFS

(Clause 3.2)

SL No.	CHARACTERISTIC	REQUIREMENT	METHOD OF TEST
(1)	(2)	(3)	(4)
i)	Colour fastness to:		
	a) Light	4 or better (see Note)	IS : 2454-1967*
	b) Washing: Test 1		IS : 687-1966†
ii)	Dimensional change, percent, <i>Max</i>	4	IS : 2977-1964‡
iii)	Scouring loss, percent, <i>Max</i>	10	IS : 1383-1977§ (Mild Method)

7

NOTE — The rating specified is in accordance with IS : 6906-1973||, which is the basic document on colour fastness ratings to various agencies.

*Method for determination of colour fastness of textile materials to artificial light (xenon lamp).

†Method for determination of colour fastness of textile materials to washing: Test 1 (*first revision*).

‡Method for determination of dimensional changes of woven fabrics (other than wool) on soaking in water.

§Methods for determination of scouring loss in grey and finished cotton textile materials (*first revision*).

||Requirements for colour fastness of handloom cotton textiles.

7.2 To ascertain the conformity of the lot to the requirements of this standard, sample shall be drawn and inspected from each lot separately.

7.3 The number of pieces to be selected at random for inspection shall be in accordance with Table 3.

TABLE 3 SAMPLE SIZE AND PERMISSIBLE NUMBER OF NON-CONFORMING PIECES

LOT SIZE	SAMPLE SIZE	PERMISSIBLE NUMBER OF NON-CONFORMING PIECES	SUB-SAMPLE SIZE	PERMISSIBLE NUMBER OF NON-CONFORMING PIECES
(1)	(2)	(3)	(4)	(5)
Up to 50	5	0	2	0
51 „ 150	8	0	3	0
151 „ 300	13	1	3	0
301 „ 500	20	1	5	0
501 „ 1 000	32	2	8	1
1 001 „ 3 000	50	3	8	1
3 001 and above	80	5	13	2

7.4 Number of Tests and Criteria for Conformity

Characteristics	Number of Tests	Criteria for Conformity
Visual inspection, ends, picks, length and width	According to col 2 of Table 3	Number of non-conforming pieces not to exceed the corresponding number given in col 3 of Table 3
Dimensional change	According to col 4 of Table 3	Number of non-conforming pieces not to exceed the corresponding number given in col 5 of Table 3
Colour fastness to washing and scouring loss	-do-	All the test specimens meet the corresponding requirements
Colour fastness to light	2 for lot size of 500 or less and 3 otherwise	-do-

APPENDIX A

(Clause 0.3)

RECOMMENDED SI UNITS FOR TEXTILES

Sl. No.	Characteristic	SI Unit		Application
		Unit	Abbreviation	
(1)	(2)	(3)	(4)	(5)
1. Length	Millimetre	mm		Fibres
	Millimetre, centimetre	mm, cm		Samples, test specimens (as appropriate)
	Metre	m		Yarns, ropes, cordage, fabrics
2. Width	Millimetre	mm		Narrow fabrics
	Centimetre	cm		Other fabrics
	Millimetre, centimetre	mm, cm		Samples, test specimens (as appropriate)
				Carpets, druggets, DURRIES (as appropriate)
3. Thickness	Micrometre (micron)	μm		Delicate fabrics
	Millimetre	mm		Other fabrics, carpets, felts
4. Linear density	Tex	tex		Yarns
	Millitex	mtex		Fibres
	Decitex	dtex		Filaments, filament yarns
	Kilotex	ktex		Slivers, ropes, cordage
5. Diameter	Micrometre (micron)	μm		Fibres
	Millimetre	mm		Yarns, ropes, cordage

Sl No.	Characteristic	SI Unit		Application
		Unit	Abbreviation	
(1)	(2)	(3)	(4)	(5)
6.	Circumference	Millimetre	mm	Ropes, cordage
7.	Threads in fabric			Woven fabrics (as appropriate)
	a) Lengthwise	Number per centimetre Number per decimetre	ends/cm ends/dm	
	b) Widthwise	Number per centimetre Number per decimetre	picks/cm picks/dm	
8.	Warp threads in loom	Number per centimetre	ends/cm	Reeds
9.	Stitches in knitted fabric			Knitted fabrics (as appropriate)
	a) Lengthwise	Courses per centimetre Courses per decimetre	courses/cm courses/dm	
	b) Widthwise	Wales per centimetre Wales per decimetre	wales/cm wales/dm	
10.	Stitch length	Millimetre	mm	Knitted fabrics, made-up items
11.	Mass per unit area	Grams per square metre	g/m ²	Fabrics
12.	Mass per unit length	Grams per metre	g/m	Fabrics

Sl. No.	Characteristic	SI Unit		Application
		Unit	Abbreviation	
(1)	(2)	(3)	(4)	(5)
13.	Twist	Turns per centimetre	turns/cm	Yarns, cordage ropes, (as appropriate)
		Turns per metre	turns/m	
14.	Test or gauge length	Millimetre, centimetre	mm, cm	Fibre, and fabric specimens (as appropriate)
15.	Breaking load	Millinewton	mN	Fibres, delicate yarns (individual or skeins)
		Newton	N	Strong yarns (individual or skeins), ropes, cordage, fabrics
16.	Breaking length	Kilometre	km	Yarns
17.	Tenacity	Millinewton per tex	mN/tex	Fibres, yarns (individual or skeins)
18.	Twist factor or twist multiplier	Turns per centimetre \times square root of tex	turns/cm $\times \sqrt{\text{tex}}$	Yarns (as appropriate)
		Turns per metre \times square root of tex	turns/m $\times \sqrt{\text{tex}}$	
19.	Bursting strength	Newton per square centimetre	N/cm ²	Fabrics

Sl. No.	Characteristic	SI Unit		Application
		Unit	Abbreviation	
(1)	(2)	(3)	(4)	(5)
20.	Tear strength	Millinewton, newton	mN, N	Fabrics appropriate)
21.	Pile height	Millimetre	mm	Carpets
22.	Pile density	Mass of pile yarn in grams per square metre per millimetre pile height	g/m ² /mm pile height	Pile carpets
23.	Elastic modulus	Millinewton per tex per unit deformation	mN/tex/unit deforma- tion	Fibres, strands yarns,

(Continued from page 2)

Members

SHRI B. R. KOWSHIK	Textiles Committee, Bombay
SHRI C. V. PRABHAKARAN	Khadi & Village Industries Commission, Bombay
SHRI M. V. RAMACHANDRA (<i>Alternate</i>)	
SHRI S. RANGARAJAN	The Handicrafts and Handlooms Export Corporation of India Ltd, Madras
SENIOR EXECUTIVE & SPECIAL OFFICER	The Tamil Nadu Handloom Weavers' Co-operative Society Ltd, Madras
SENIOR MANAGER (PRODUCT DEVELOPMENT) (<i>Alternate</i>)	
SHRI T. O. THOMAS	Kerala State Handloom Weavers, Co-operative Society Ltd, Trivandrum
SHRI D. R. YADAV	Ministry of Defence (DGI)
SHRI V. C. MATHUR (<i>Alternate</i>)	

Representing

INDIAN STANDARDS**ON****HANLOOM COTTON FABRICS**

IS:

745-1975 Handloom cotton bed sheets, grey (*first revision*)
749-1978 Handloom cotton dungri cloth (*first revision*)
750-1976 Handloom cotton lungies (*first revision*)
752-1955 Handloom cotton muslin, bleached
753-1955 Handloom cotton pugri cloth, bleached or dyed
755-1955 Handloom cotton malmal, bleached
756-1955 Handloom cotton dosuti, grey, scoured, bleached or dyed
757-1971 Handloom cotton lint, absorbent, bleached (*first revision*)
758-1975 Handloom cotton gauze, absorbent (*second revision*)
854-1981 Handloom cotton turkish towels and towelling cloth (*first revision*)
855-1979 Handloom cotton honeycomb towels and towelling cloth (*first revision*)
856-1971 Handloom cotton huckaback towels (*first revision*)
858-1981 Handloom cotton table cloth and napkins (*amalgamating IS : 857-1956*)
(*first revision*).
859-1978 Handloom cotton dusters (*first revision*)
860-1956 Handloom cotton sponge cloth, grey, striped and checked
861-1956 Handloom cotton jaconet cloth, grey, dressed
862-1956 Handloom cotton ticking cloth, grey, striped
863-1969 Handloom cotton bandage cloth (*first revision*)
864-1956 Handloom cotton light sheeting, grey
1094-1976 Handloom cotton gada cloth (*first revision*)
1095-1957 Handloom cotton dress material, bleached, dyed, printed, striped or checked
1096-1957 Handloom cotton holland cloth, unscooped
1097-1979 Handloom cotton mosquito netting (*first revision*)
1098-1957 Handloom cotton cambric, bleached
1099-1957 Handloom cotton lining cloth, dyed
1100-1978 Handloom cotton crepe (*first revision*)
1101-1981 Handloom cotton cellular shirting (*first revision*)
1102-1968 Handloom buckram cloth (*first revision*)
1240-1958 Handloom cotton nainsook, bleached or dyed
1241-1958 Handloom cotton calico, bleached or dyed
1242-1975 Handloom cotton shirting (*first revision*)
1243-1981 Handloom cotton coating (*first revision*)
1244-1958 Handloom cotton longcloth, bleached or dyed
1245-1958 Handloom cotton pyjama cloth, grey, with stripes
1246-1978 Handloom cotton curtain cloth (*first revision*)
1247-1958 Handloom cotton Madras check
1451-1979 Handloom cotton drills (*first revision*)
1556-1960 Handloom cotton poplin, bleached or dyed
1579-1979 Handloom cotton twills (*first revision*)
1814-1961 Handloom cotton mootus, striped or checked
1937-1961 Handloom cotton bleeding Madras, loomstate
1939-1975 Handloom cotton handkerchiefs (*first revision*)
2158-1962 Handloom viscose staple fibre lungies, striped or checked
2159-1962 Handloom viscose staple fibre shirting, bleached, dyed, striped or checked
2160-1962 Handloom viscose staple fibre coating, bleached, dyed, striped or checked
2172-1962 Handloom filament rayon saries
2715-1964 Handloom cloth, collar, white
6237-1971 Handloom cotton cloth for plaster of paris bandages and cut bandages
6906-1973 Requirements for colour fastness of handloom cotton textiles
8797-1978 Handloom cotton fabric for school uniforms